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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SAXENA, AKASH

ART UNIT

PAPER NUMBER

2128

NOTIFICATION DATE

DELIVERY MODE

10/05/2007

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/827,078	Applicant(s) BECK ET AL.	
	Examiner Akash Saxena	Art Unit 2128	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claim(s) 1-22 has/have been presented for examination based on amendment filed on 30th July 2007.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30th July 2007 has been entered.
3. Claim(s) 1, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15, 16, 18-22 is/are amended.
4. Claim(s) 1-22 remain rejected under 35 USC § 101.
5. Claim(s) 1-22 remain rejected under 35 USC § 112, as new rejection is added and previous ones are updated.
6. Claim(s) 1-22 remain rejected under 35 USC § 102 with updated response.
7. The arguments submitted by the applicant have been fully considered. Claims 1-22 remain rejected and this action is made NON-FINAL. The examiner's response is as follows.

Claim Interpretation

8. Claim 1 is amended to recite the following limitations:

determining if a conflict exists between at least two of the configuration models [1], wherein the configuration models are organized in accordance with respective directed acyclic graphs, each configuration model includes at least one ancestor configuration model family and a child configuration model family below the ancestor family [2], a first conflicting configuration model comprises a configuration model that includes a release of a product that is not released in at least a second conflicting configuration model and the product is defined using the ancestor and child configuration model families [3];

extending the ancestor family of the product in the first conflicting configuration model to be compatible with second conflicting configuration model [4];

restricting child family in the first conflicting configuration model so that the child family is not released in the extension of the ancestor family [5];

combining the configuration models into a single, consolidated model that maintains a non-cyclic chain of dependencies among families and features of families for use in answering configuration questions.

Determining if a conflict exists as in [1] above is understood as identification of non-complaint components/products in configuration.

In [2], the "ancestor configuration" is understood as parent configuration of the "child configuration".

In [3], the "ancestor configuration model family" is the same for the "first conflicting configuration model" and "second conflicting configuration model".

The "child configuration model family" is different for the "first conflicting configuration model" and "second conflicting configuration model".

In [4], the step of extending the ancestor family to the second configuration is understood as identification of the common parent node in the directed acyclic graph (DAG) for both the "first child configuration model family" and "second child configuration model family".

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In [5], the step of restricting is understood as removing from the DAG the “first child configuration model family” and adding “second child configuration model family”.

Overall the process is understood as conflict determination and selection of second conflicting child configurations, removal of the first conflicting child configurations, thereby providing the resolution to the conflict. Further the process involves combining two DAG that are identical till parent nodes (top parts of the DAG as ancestral configurations) of the conflicting children, and then removal of one of the children to publish/release of a suitable combination.

E.g. All the components of a bike, sans the gears, representing ancestral configuration, and 10 speed and 15 speed gears as conflicting child configurations. If the 10-speed gear is the released version, the 15-speed gear is combined with the ancestral configuration with restriction (removal of 10 speed to resolve to a completed configuration) on the 10-speed, for release as a new product – leading to the final step of the claim.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. Claims 1-22 recite a abstract idea of combining two models (DAG) which specification describes as represented by Directed Acyclic Graphs (DAG) (Specification: (110, Fig.2). Combining DAG is a mathematical concept. Binary decision diagram (BDD) is a form of DAG and a paper showing the combining BDD¹ is included as prior art.

Claims 1-22 do not claim any practical application of the combination.

Section 2106 [R-2] (Patentable Subject Matter - Computer-Related Inventions) of the MPEP recites the following:

If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. Schrader, 22 F.3d at 294-95, 30 USPQ2d at 1458-59. Thus, a process consisting solely of mathematical operations, i.e., converting one set of numbers into another set of numbers, does not manipulate appropriate subject matter and thus cannot constitute a statutory process.

"In practical terms, claims define nonstatutory processes if they: consist solely of mathematical operations without some claimed practical application (i.e., executing a "mathematical algorithm"); or - simply manipulate abstract ideas, e.g., a bid (Schrader, 22 F.3d at 293-94, 30 USPQ2d at 1458-59) or a bubble hierarchy (Warmerdam, 33 F.3d at 1360, 31USPQ2d at 1759), without some claimed practical application."

Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As described through these claims, the claimed invention does not physically transform an article or physical object to a different state or thing, so to be eligible for patent protection, the claimed invention as a whole must accomplish a practical application. That is, it must produce a useful,

¹ Symbolic Model Checking An approach to the state explosion problem; Kenneth L. McMillan, May 1992, Pg. 41-44

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concrete and tangible result." State Street, 149 F.3d at 1373-74, 47 USPQ2nd at 160102. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept.

Further, claims 1-22 do not seem to produce a tangible result. The tangible requirement of State Street decision requires that the claims must recite at least one 35 USC 101 judicial exception, in that the process claim must set forth a practical application of the 35 USC 101 judicial exception. Benson, 409 U.S. at 71-72, 175 USPQ at 676-77 (invention ineligible because had "no substantial practical application.").

Applicant has amended the limitation (underlined)

"combining the configuration models into a single, consolidated model that maintains a non-cyclic chain of dependencies among families and features of families for use in answering configuration questions."

First "for use in answering configuration questions" does not make the claim statutory as the result of the method step are still not concrete and tangible.

Secondly, the claim still presents an abstract idea not directed towards any claimed specific transformation of physical object and as understood by claim interpretation is limited to mathematical concept of altering a DAG presentation.

Independent claims 1, 3, 4 and 22 all recite the intended use of the combining the DAG in the last step.

MPEP 701 & 2105 states:

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed

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invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

In this case the intended use does not result in any structural difference and does not add any limitation to the method, system, or program product claims. The rejection is maintained under this statute.

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Claim Rejections - 35 USC § 112^{1st}

The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

10. Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific asserted utility or a well established utility.

The claimed invention is an abstract idea as explained in the 35 USC 101 claim rejection above. There may be a specific and substantial utility present in the specification, however it is not claimed.

Claims 1-22 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a -specific and substantial-- asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

11. Further, Claims 1-22 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed how to practice the undisclosed practical application. This is how the MPEP puts it:

("The how to use prong of section 112 incorporates as a matter of law the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112.") In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA

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1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**")
See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-22 are rejected on this basis.

12. Claims 1-22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, based on applicant's argument, that step of determining the conflict is not based on the exclude type of rule, examiner is unclear from the disclosure how the conflict is determined. Please see claim interpretation section and Response to Arguments for 35 USC § 102 Rejection.

Claim Rejections - 35 USC § 112nd

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

13. Claim 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding Claim 1-22

Claim 1 discloses "A method of consolidating using a computer system to consolidate multiple configuration models using an automated process".

This claim is indefinite because it is not clear which statutory category the claim should be examined under – i.e. a "method" claim or a "system" claim.

Secondly, applicant has amended the "automated process" in preamble and is not considered to be a limitation for reasons below. (a) Claim preamble language may not be treated as a limitation where it merely states an intended use of the system and is unnecessary to define the invention, the U.S. Court of Appeals for the Federal Circuit ruled May 8 (Catalina Marketing Int'l Inc. v. Coolsavings.com Inc., Fed. Cir., No. 01-1324, 5/8/02).

(b) Even if "consolidating the models" by an "automated process" is considered to be a limitation, this does not patentably distinguish the limitation from prior art.

MPEP 2144.04 III states:

In re Venner, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958) (Appellant argued that claims to a permanent mold casting apparatus for molding trunk pistons were allowable over the prior art because the claimed invention combined "old permanent-mold structures together with a timer and solenoid which automatically actuates the known pressure valve system to release the inner

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core after a predetermined time has elapsed." The court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.)

Independent claims 3, 4 and 22 suffer from same deficiency and rejected likewise.

Dependent claims 2 and 5-9 are rejected based on their dependency on rejected claim 1. Dependent claims 1-15 are rejected based on their dependency on rejected claim 3. Dependent claims 16-21 are rejected based on their dependency on rejected claim 4.

14. Claim 22 further recites means for language for which no support is indicated in the specification. Therefore it is unclear if the protection under 35 USC 112 ¶ 6th paragraph is sought by applicant, making the claim indefinite. Specifically, for example, examiner is unable to interpret how the steps of determining a conflict should be interpreted.

Response to Arguments for 35 USC § 102 Rejection

(Argument 1) Applicant has argued the following:

Applicants respectfully submit that the alternative choices taught by Lichtenberg are within a single DAG, whether a combination of other DAGs or not. However, Applicants respectfully submit "obtaining the number of all possible compatible products" and "combining two DAGs" does not teach or suggest "determining if a conflict exists between at least two of the configuration models" as required by claims 1, 3, and 4. (emphasis added).

(Response 1) Examiner respectfully traverses applicant's argument. As best understood, the determination of conflict is based on the 'exclude type' rule, as indicated by applicant (Remarks Pg. 13). Hence the two configurations cannot exist in a DAG at the same time for a product to be realizable (two type of gear systems in one bike). Hence the step of determination of conflict is a preliminary/inherent step in elimination of non-compatible components after selection, based on the rule. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections. Specifically, Applicant seems to be arguing that the conflicting configurations as claimed represent different DAG's, and alleging that Lichtenberg has only one DAG.

The claim language indicates to the contrary. For example Claim 1 states:

determining if a conflict exists between at least two of the configuration models, wherein the configuration models are organized in accordance with respective directed acyclic graphs, each configuration model includes at least one ancestor configuration model family and a child configuration model family below the ancestor family, a first conflicting configuration model comprises a configuration model that includes a release of a product that is not released in at least a second conflicting configuration model and the product is defined using the ancestor and child configuration model families;

extending the ancestor family of the product in the first conflicting configuration model to be compatible with second conflicting configuration model;

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restricting child family in the first conflicting configuration model so that the child family is not released in the extension of the ancestor family;

There seems to be only one instance of an ancestral family that is common to the both conflicting configurations as seen by the antecedent basis. Examiner finds applicant's position contrary to the claimed limitation and respectfully maintains the rejection.

(Argument 2) Applicant has argued that Lichtenberg does not teach the newly amended limitations.

(Response 2) Examiner respectfully disagrees and presents the updated rejection below.

(Argument 3) Applicant has argued the following:

Regarding the response to Applicants remarks in the previous Office Action, Applicants respectfully disagree with the conclusions drawn in the Office Action. For example, the Office Action on page 5 states that "Applicants have themselves addressed the first argument." "The fact that Lichtenberg teaches selection of a particular component can exclude selection of other components shows a conflict was detected and a particular configuration path was chosen in the directed acyclical graphs." *Id.* Applicants respectfully submit that excluding a selection by selecting a particular component in the context of Lichtenberg does not indicate a conflict of the rules. It shows the presence of an 'exclude' type rule or the equivalent thereof. A conflict would exist if one rule said to exclude a component and another rule said to include the component. The presence of an 'exclude' type rule does not alone indicate a conflict among rules. Thus, Applicants respectfully submit that finding alternatives that are incompatible with other chosen alternatives, as taught in Lichtenberg paras. 0102-0105 is a discussion regarding compatibility of alternatives and not about conflict between rules.

(Response 3) In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., type of rules to detect conflict – e.g. exclude type rules) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Secondly, Examiner has presented rationale for detecting conflict between conflicting configurations in Response 1. Although not claimed, applicant has argued against 'an exclude rule' type to detect conflict without providing what rule or mechanism would be used to identify a conflict between the configurations.

(Argument 4) Applicant has argued the following:

Regarding Lichtenberg's teachings and suggestions regarding combining DAGs, Applicants cannot find any teachings or suggestions in Lichtenberg that Lichtenberg had (or possibly appreciated) the problems of combining two configuration models when "a first conflicting configuration model [that] comprises a configuration model that includes a release of a product that is not released in at least a second conflicting configuration model and the product is defined using the ancestor and child configuration model families." Claims 1, 3, and 4.

(Response 4) It is unclear what "release of a product" has to do with combining the DAG. The limitation is at best understood as intended use of the combined DAG that does not make add to any limitation/conflict present in the DAG. If the intent is to include some sort of versioning effect in the DAG examiner would appreciate a clarification. A search was conducted based on applicant's remarks and prior art is attached to its effect. Examiner finds applicant's argument unpersuasive.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

15. Claims 1-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent Publication No. 2002/0165701 by Lichtenberg et al (Lichtenberg hereafter).

Regarding Claim 1 (Updated 9/21/07)

Lichtenberg teaches a method of consolidating multiple configuration models in to a single consolidated model (being a directed acyclic graph) among the families and feature of the families (described as component & associated rules) (Lichtenberg: [0076][0094][0062], Fig.1).

Lichtenberg teaches:

determining if a conflict exists between at least two of the configuration models, wherein the configuration models are organized in accordance with respective directed acyclic graphs, each configuration model includes at least one ancestor configuration model family and a child configuration model family below the ancestor family, a first conflicting configuration model comprises a configuration model that includes a release of a product that is not released in at least a second conflicting configuration model and the product is defined using the ancestor and child configuration model families;

as determining the partial configurations ([0006]) which may be conflicting and only certain configuration out of all the possibilities satisfy the final product requirement ([0007]-[0008]). The ancestral configuration could be understood as configuration for the bike without the 2 possible conflicting gear configuration (as conflicting child configurations).

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Lichtenberg teaches:

extending the ancestor family of the product in the first conflicting configuration model to be compatible with second conflicting configuration model;

as combining two DAG where there is ancestral configuration (as node with same configuration) is identified ([0076]-[0084]).

Lichtenberg teaches:

restricting child family in the first conflicting configuration model so that the child family is not released in the extension of the ancestor family;

as determining the compatible and non-compatible products where one of the alternatives is selected ([0092]-[0096]).

Lichtenberg teaches:

combining the configuration models into a single, consolidated model that maintains a non-cyclic chain of dependencies among families and features of families for use in answering configuration questions.

as combining the DAG ([0076]).

Regarding Claim 2

Lichtenberg teaches detecting any inconsistencies between rules included in the consolidated model (Lichtenberg: [0090]-[0094] – non-compatible products) and attempting to resolve any detected inconsistencies by not allowing the user to select a inconsistent solution (Lichtenberg: [0096]-[0108]).

Regarding Claim 3-4 (Updated 9/21/07)

Limitations presented in claims 3-4 are similar to limitations presented in claim 1 and rejected likewise. Lichtenberg teaches a system (Lichtenberg: [0043]) and a computer program (Lichtenberg: Fig. 2-3, [0272]) for implementing the method of claim 1. *Lichtenberg teaches wherein each model comprises only rules that define a*

non-cyclic chain of dependencies among families and features of families (Lichtenberg: [0062]-[0073]) and at least one model includes a rule that causes a configuration conflict with another model (Lichtenberg: [0062], [0090], [0092]-[0094], [0102]-[0105], [0134]-[0150] – partial DAG representing features and families, [0162], [0191], [0383] – incompatibility between selected model and reconfiguration).

Regarding Claim 5

Lichtenberg teaches wherein the configuration models represent configuration models of vehicles (Lichtenberg: Fig.1 – Showing a bicycle).

Regarding Claim 6

Lichtenberg teaches wherein the consolidated model includes only buildable configurations (Lichtenberg: [0406]-[0412] – excluding incompatible selections).

Regarding Claim 7 (Updated 9/21/07)

Lichtenberg teaches *extending the ancestor family of the product in the first conflicting configuration model to be compatible with second conflicting configuration model as combining the DAG's (Lichtenberg: [0076]-[0084]) further comprises extending a rule from the first conflicting configuration model into the ancestor family and (Lichtenberg: [0062], [0076]-[0079]); and repairing the extension of the rule in the child family (Lichtenberg: [0133]-[0150]).*

Regarding Claim 8 (Updated 9/21/07)

Lichtenberg teaches combining the *configuration* models into a single, consolidated *configuration* model further comprises loading the *configuration* models into a memory of the computer system (Lichtenberg: [0027]-[0034], [0224]-[0233], [0272]-

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[0274]); constructing a directed acyclic graph of all rules in all the models (Lichtenberg: [0272]-[0274]); for each *configuration* model, determining which portions of an overall configuration space for which the *configuration* model does not provide a buildable configuration (Lichtenberg: [0008], [0060] and [0090]); and for each *configuration* model, constraining statements of the rules with in the *configuration* model to fall within a space of defining features of the *configuration* model (Lichtenberg: [0061]-[0062]).

Regarding Claim 9

Lichtenberg teaches

"determining which portions of an overall configuration space for which each *configuration* model does not provide a buildable configuration further comprises determining which families are ancestors of families of defining constraints and subtracting a right hand side and a left hand side of each rule of each family that are ancestors of families of defining constraints from a rule representing all buildable configurations."

as providing an intersection to provide all compatible (buildable) or incompatible (un-buildable) products (Lichtenberg: [0085]-[0094]).

Regarding Claim 10 (Updated 9/21/07)

System claim 10 discloses similar limitations as claim 2 and is rejected for the same reasons as claim 2. Claim is amended for grammatical reasons.

Regarding Claim 11 (Updated 9/21/07)

System claim 11 discloses similar limitations as claim 5 and is rejected for the same reasons as claim 5.

Regarding Claim 12

System claim 12 discloses similar limitations as claim 6 and is rejected for the same reasons as claim 6.

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Regarding Claim 13 (Updated 9/21/07)

System claim 13 discloses similar limitations as claim 7 and is rejected for the same reasons as claim 7. Further, claim is amended for grammatical reasons.

Regarding Claim 14 (Updated 9/21/07)

System claim 14 discloses similar limitations as claim 8 and is rejected for the same reasons as claim 8. Claim is amended for grammatical reasons.

Regarding Claim 15 (Updated 9/21/07)

System claim 15 discloses similar limitations as claim 9 and is rejected for the same reasons as claim 9. Claim is amended for grammatical reasons.

Regarding Claims 16-21 (Updated 9/21/07)

Computer program product claims 16-21 disclose similar limitations as claim 2, 5-9 and are rejected for the same reasons as claims 2, 5-9 respectively.

Regarding Claim 22

Limitations presented in claim 22 are similar to limitations presented in claim 1 and rejected likewise. No specific support was cited for "means for" language and is this claim is interpreted ordinarily.

Conclusion

16. All claims are rejected.

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

18. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in their entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

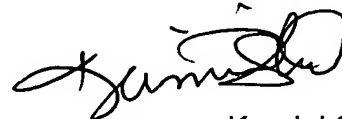
Communication

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Akash Saxena whose telephone number is (571) 272-8351. The examiner can normally be reached on 9:30 - 6:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini S. Shah can be reached on (571)272-2279. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Akash Saxena
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Friday, September 21, 2007



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Structural Design, Modeling, Simulation and Emulation